Pre Menstrual Syndrome- Prevalence and Effect on Quality of Life Among Women of Reproductive Age Group Attending Outpatient Services in A Tertiary Care Hospital in Chennai

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Abstract:

➤ *Background*:
Premenstrual syndrome, a periodical disorder of young and middle-aged women, is characterized by affective, emotional and physical symptoms that take place during the premenstrual phase. The symptoms may cause impairment to the daily lives of women, affecting their social, behavioural, inter-personal and work-related aspects of life.

➤ *Aim and Objectives:*
To estimate the magnitude and impact on quality of life of Premenstrual syndrome among women of reproductive age and to find the association with socioeconomic status.

➤ *Method:*
Descriptive cross-sectional study with convenience sampling using a self-structured validated question.

➤ *Result:*

➤ *Conclusion:*

I. INTRODUCTION

Premenstrual syndrome is a disorder of young and middle-aged women affecting menstrual cycle, which is defined by emotional and physical symptoms that consistently occur during the premenstrual phase. Women with severe affective symptoms are classified as having premenstrual dysphoric disorder. (1) The prevalence of PMS is estimated to be in 20 to 32 % of premenopausal and 30-40% of the reproductive women. (2) The disorders can present with a vast range of symptoms like depression, irritability, abdominal pain, gastralgia, headache and fatigue. (1) These symptoms cause significant distress to the daily lives of women, affecting their social, behavioural, inter-personal and work-related aspects of life.

Hypothesised aetiologies include increase in sensitivity of the body to hormones- estrogen and progesterone, increased activity of aldosterone and plasma renin and neurotransmitter abnormalities like serotonin (3)

Premenstrual syndrome and premenstrual dysphoric disorder are diagnoses of exclusion; therefore, alternative explanations for symptoms must be considered before either diagnosis is made.

Women with lesser symptoms may benefit from lifestyle changes, including healthy diet, salt and caffeine restriction, exercise, and stress management. Other Supportive strategies, like use of a symptom diary, may be helpful in diagnosing and managing the disorders. In women

with moderate level of symptoms, both medical and lifestyle modifications must be considered. Dietary supplements, like calcium tablets and primrose oil, may offer some benefit. SSRIs such as fluoxetine and sertraline are considered most effective pharmacologic agents. Prostaglandin inhibitors and diuretics also provide some temporary relief of symptoms. Not much evidence supports the effectiveness of gonadotropin-releasing hormone agonists, androgenic agents, estrogen, progesterone and side effects discourage their use.[1]

➢ *Aims and Objectives:*

- To estimate the magnitude of Premenstrual syndrome among women of reproductive age.
- To assess the effect of premenstrual syndrome on the quality of life.
- To find out the association between select socio-demograghic variables and Premenstrual syndrome.

II. METHODOLOGIES

➢ *Study Design:*
Descriptive Cross Sectional Study

➢ *Study Period:*
June2022 – September 2022

➢ *Study Center:*
Patients attending OPD in:

- Government Medical College and Hospital, Omandurar Government Estate, Chennai
- Institute of Social Obstetrics and Government Kasturba Gandhi Hospital, Chennai

➢ *Study Population:*

- *Source***:**
Women of reproductive age group attending out patient department

- *Sample***:**
Convenient sampling

- *Study Tool:*
Self-structuredvalidatedQuestionnaire

➢ *Inclusion Criteria:*
Women of reproductive age group visiting the hospitalwho gave consent for the study.

➢ *Exclusion Criteria:*

- Women who do not give consent for the study
- Women with diagnosed psychiatry disorders.
- Ante-Natal mothers.
- Post-Natal mother's (upto 1 year of child birth)

➢ *Sample Size Calculation:*
Based on the formula,

$$(4pq) / (l)^2$$

Sample size is estimated to be 200.

➢ *Procedure:*
Women of reproductive age group are selected by convenient sampling from the outpatient department.Oral consent will be obtained from the participants. They are explained about each question of the self structured, interviewer administered questionaire and data will be collected in local language.Descriptive, inferential statistics was used to assess the prevalence of premenstrual syndrome among women of reproductive age group. The data will be prepared in a google form and entered,which will be used for statistical analysis.

➢ *Statistical Analysis:*
The collected Data shall be analyzed using the SPSS software using logistic regression for dichotomous outcomes and linear regression for continuous outcomes. Data will be presented using the descriptive and inferential statistics method. P-value less than 0.05 will be considered statistically significant. We will use generalized estimating equations and random effects modeling to adjust for time-dependent covariates.

➢ *Implications:*
The estimation of prevalence and impact of premenstrual syndrome will help understand the importance of awareness about these symptoms and motivate people to seek appropriate medical care.

➢ *Results:*
The study comprises of 210 women of reproductive age group who attended the Outpatient department in Government Omandurar Medical College and hospital.

Out of the 210, 11.5% were under the age of 20, 15.3% above 40 years and the maximum fraction being 21–30-year-old women constituting 46.4%.
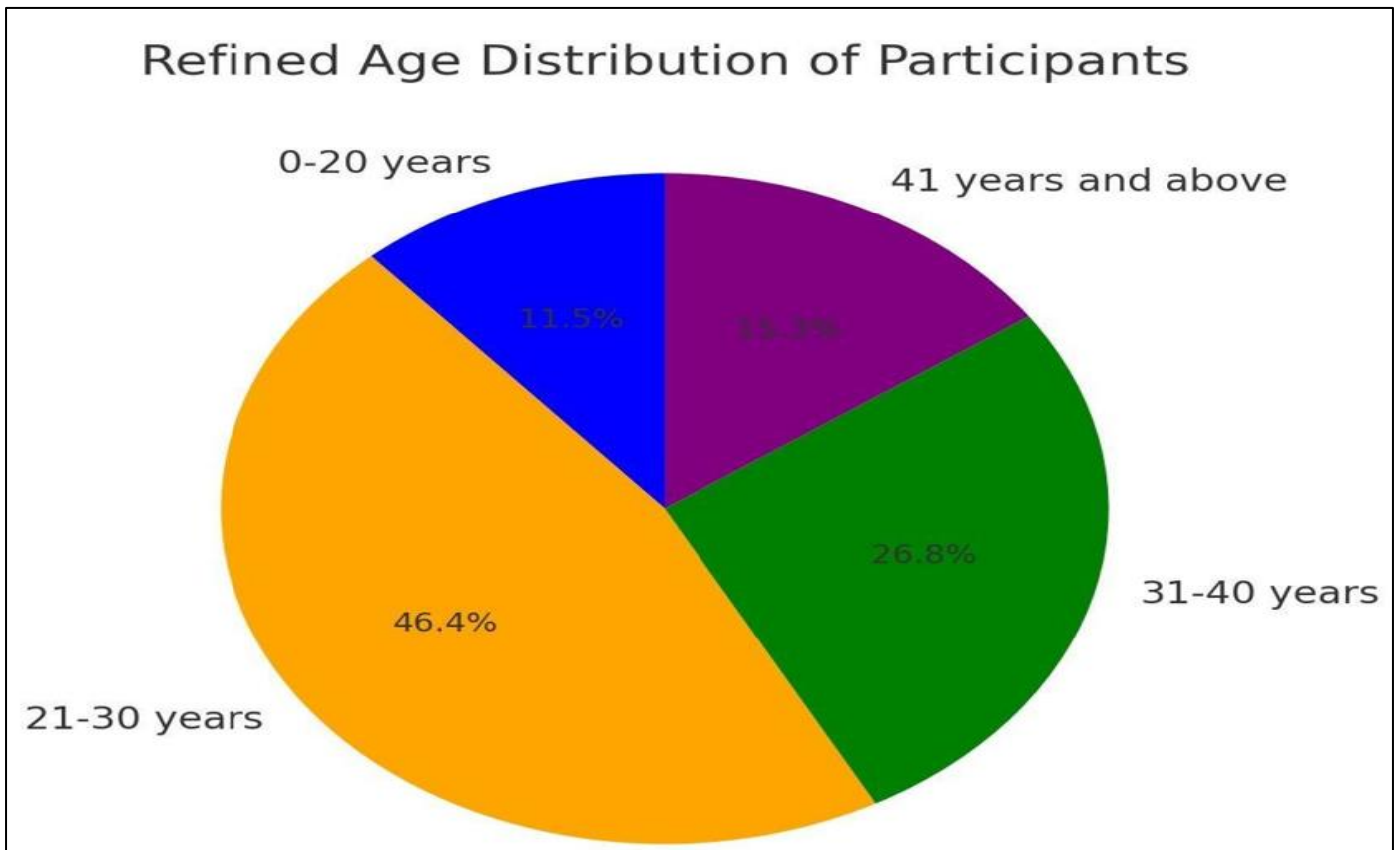
Fig 1 Graph Showing Age Distribution of Participants

Classification based on occupation, revealed that almost half (46.7%) of the population were employed in some stream of work and the other half constituted homemakers and students.
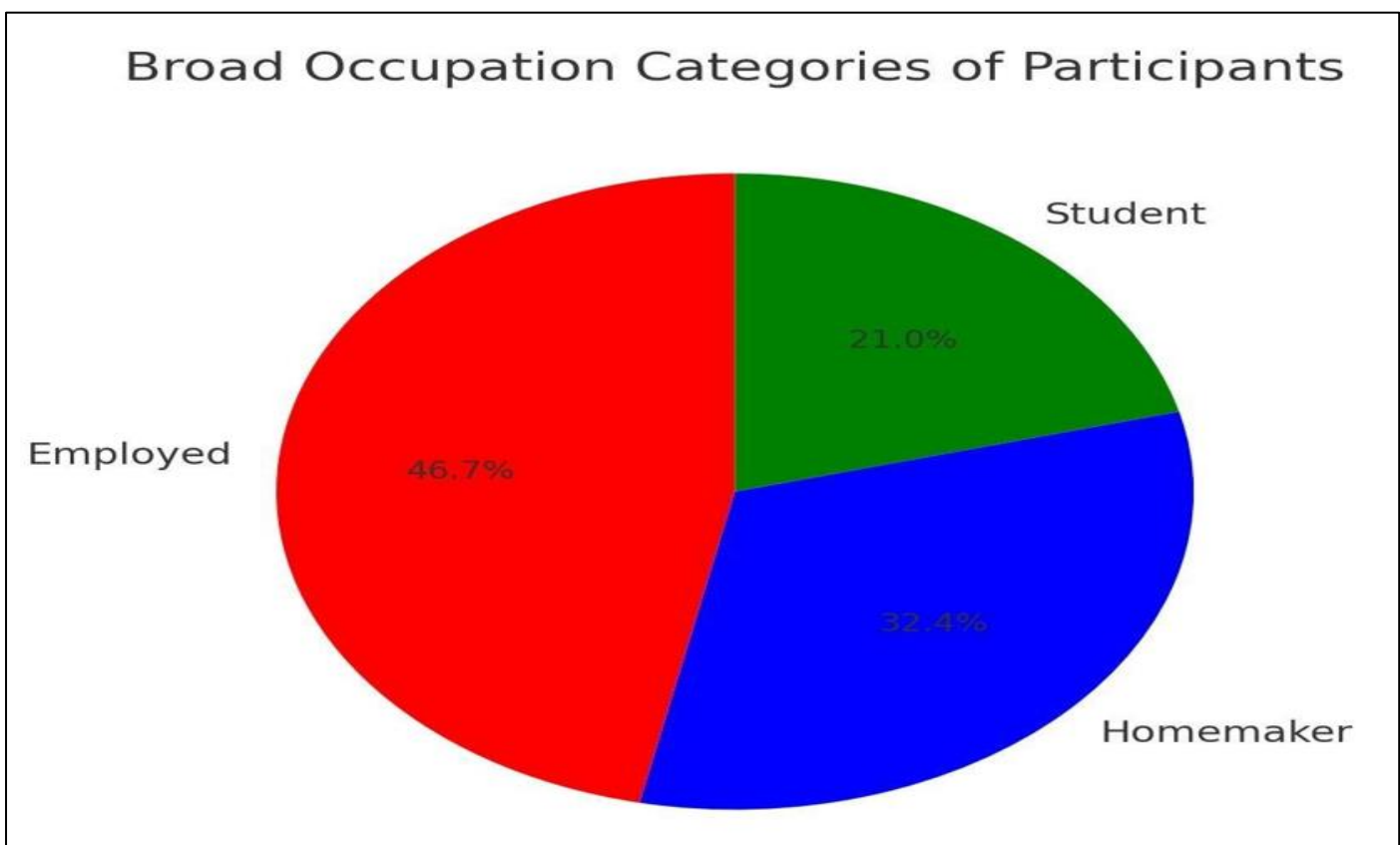

Fig 2 Graph Showing Occupation Distribution

Based on the data from the survey forms, diagnosis of Pre-Menstrual Syndrome was made according to the ACOG diagnostic criteria. 60.5% of the sample population checked the criteria for PMS leaving 39.5% who did not meet the criteria. The findings reveal that more than half of the sample reported having some symptoms of PMS for more than 3 months.
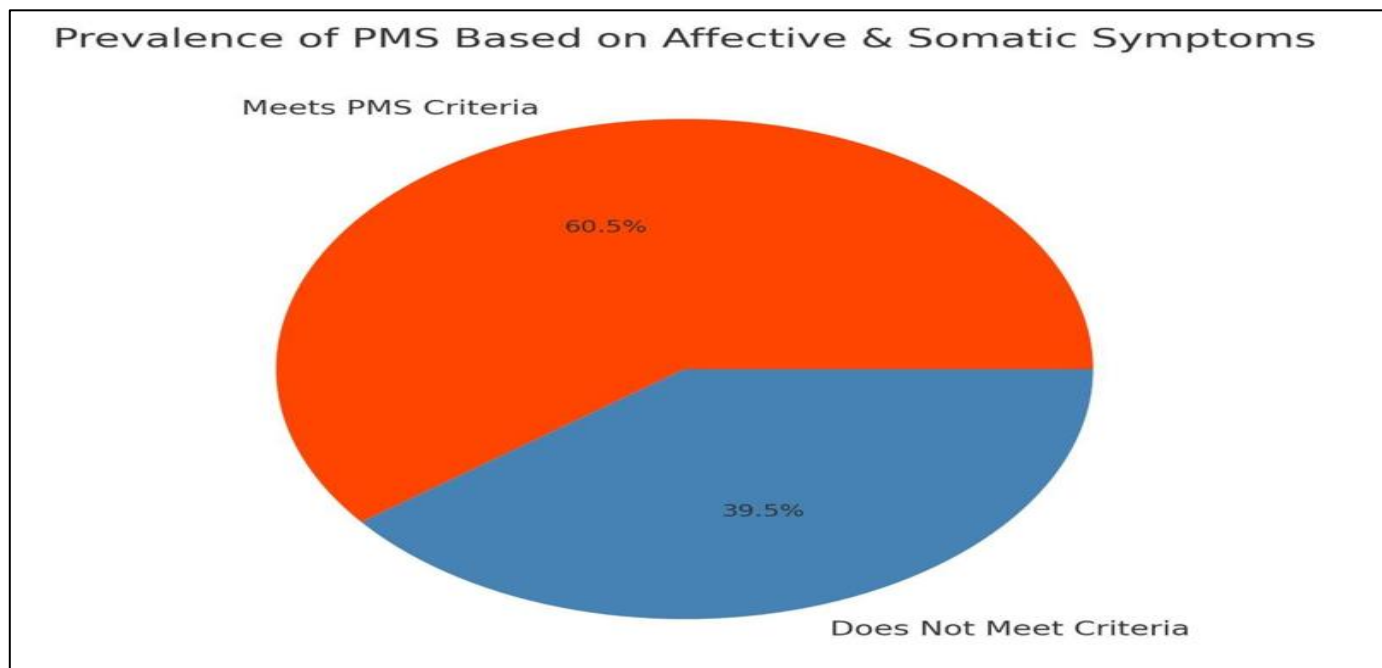

Fig 3 Chart Showing Prevalence of PMS Diagnosed Cases

The participants were also surveyed for assessing their quality of life altered by the impact of PMS. 5 aspects such as Self-image, mood, daily activities, physical health, future were assessed and scored.

As per figure5, 10.6% of women scored between 11-14 and 5% scored in the lower end (1-3) where higher scores indicate better quality of life and vice versa. Majority of the women (49.7%) lie in the range of 8-10 (lower moderate quality of life).
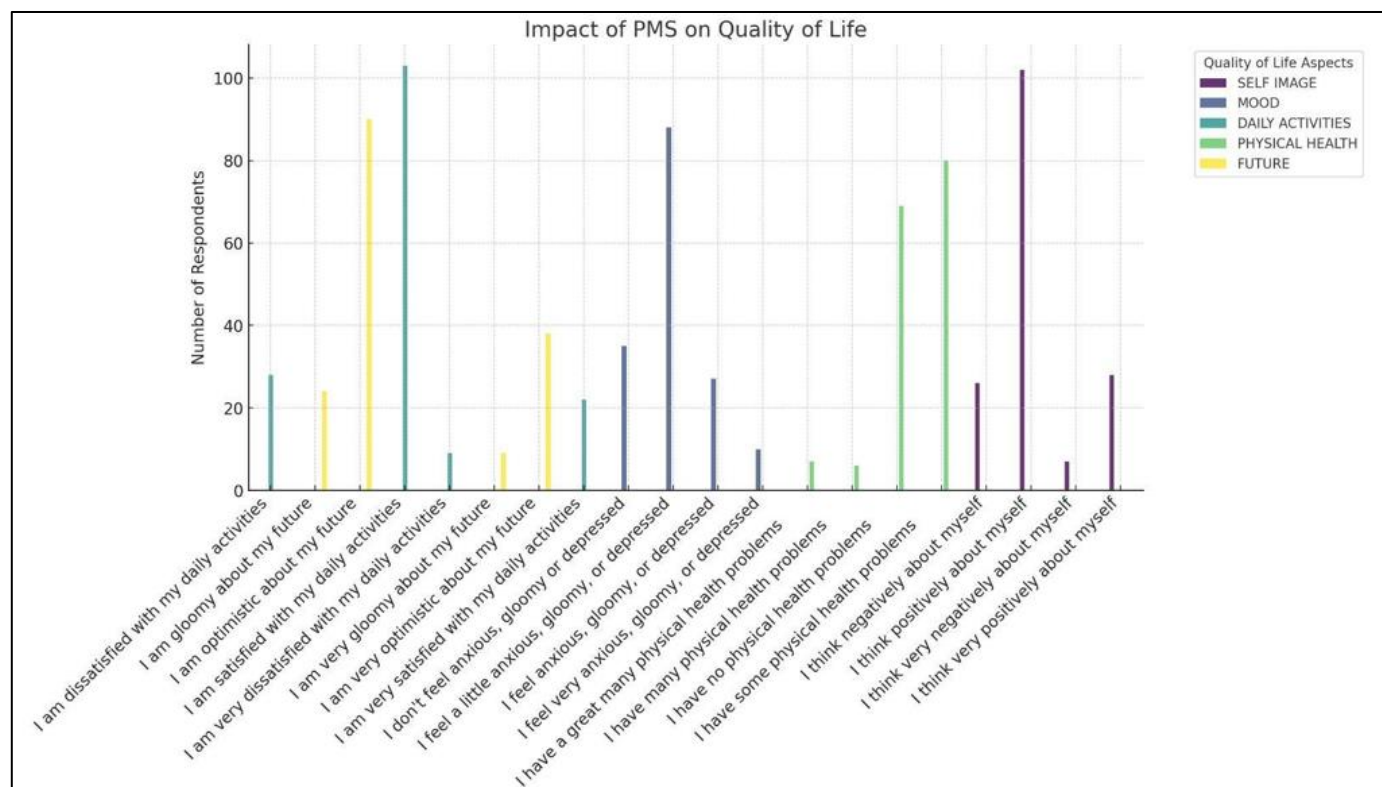

Fig 4 Graph Showing Impact of PMS On Different Aspects of Life
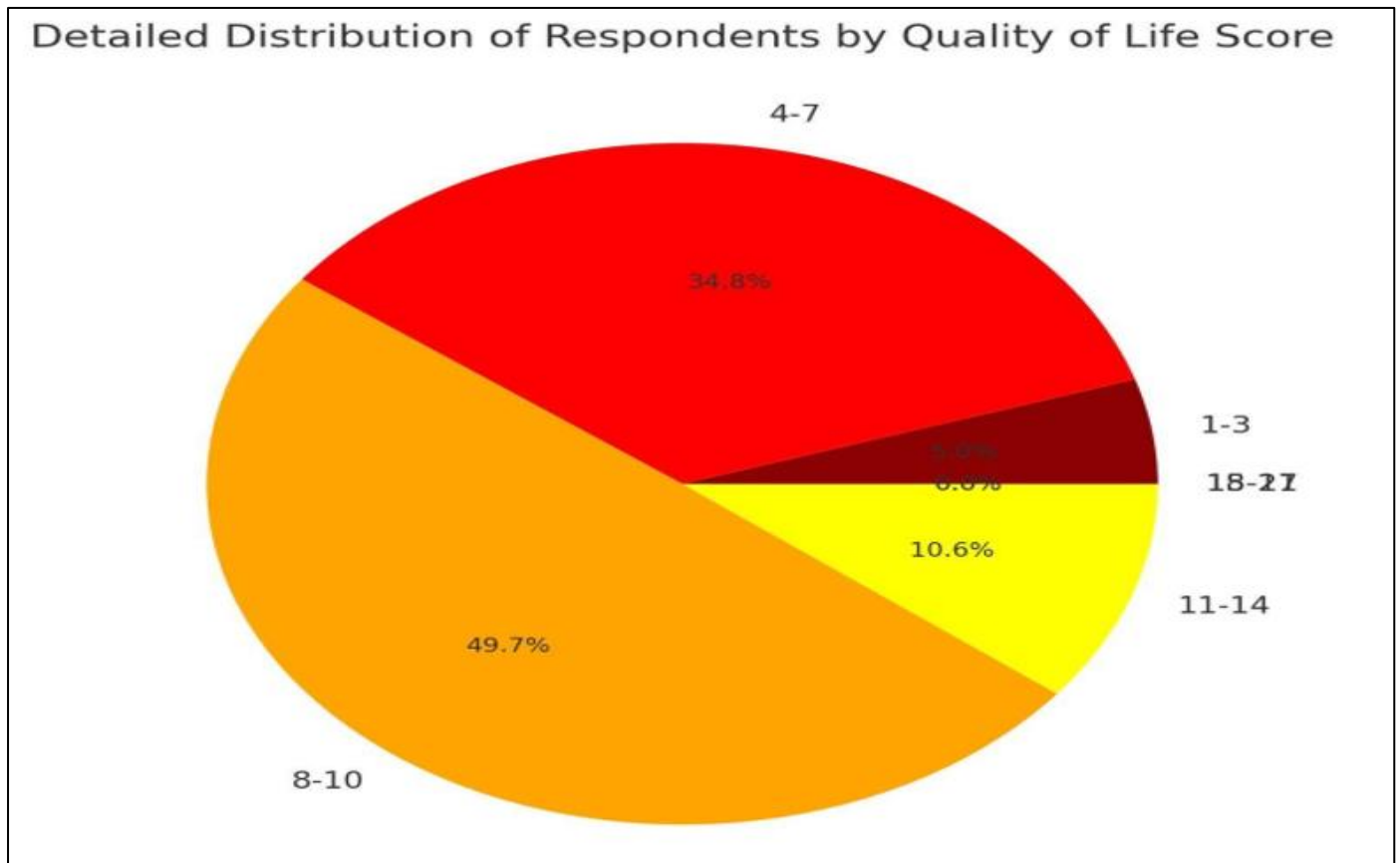
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Fig 5 Distribution of Participants Based on Severity of Impact

Further surveying for its impact on quality of life using MHQoL questionnaire revealed that majority of women reported lower quality of life indicating a loose association between prevalence of PMS and its impact on quality of life.
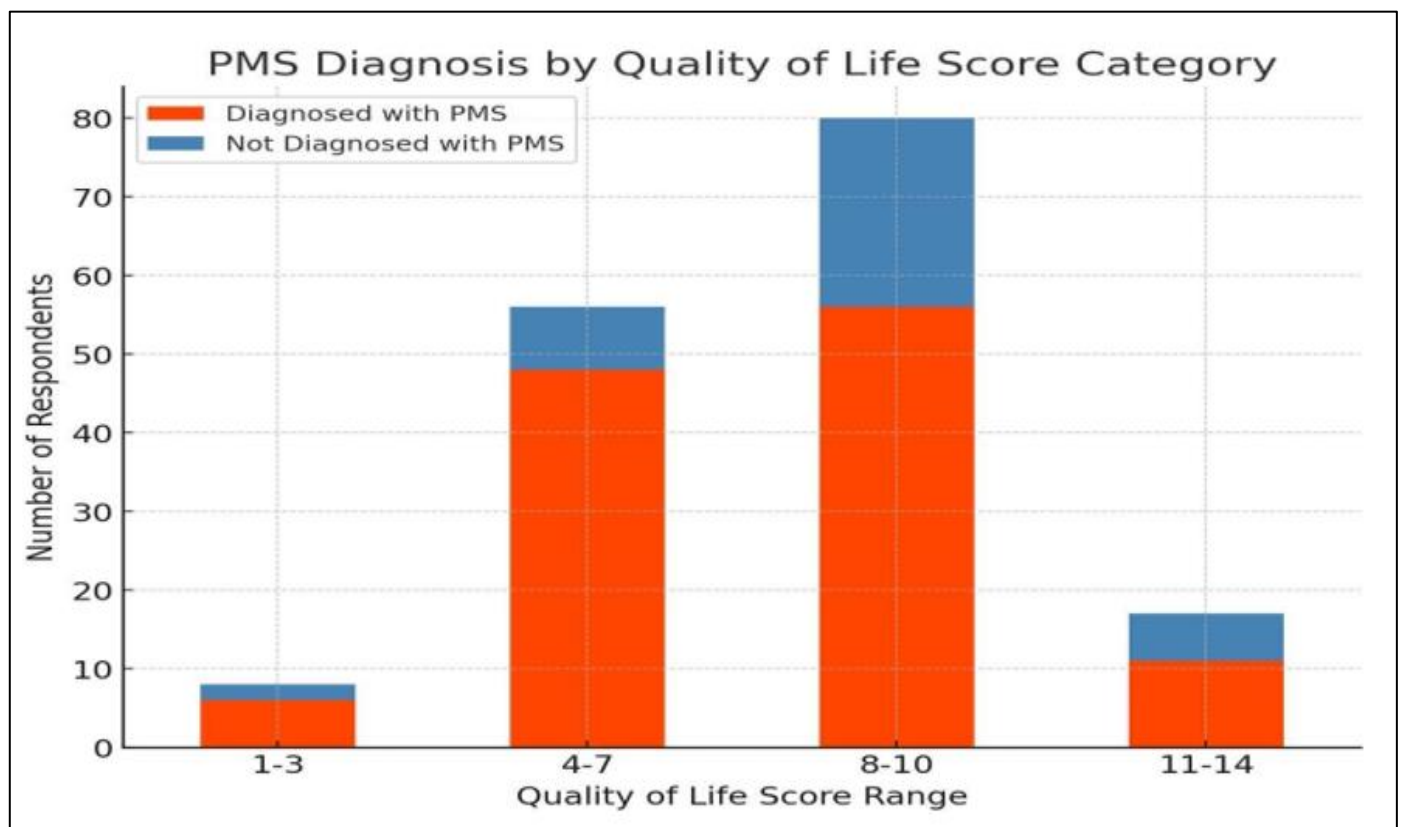

Fig 6 Quality of Life Score Category

III. DISCUSSION

The study presents the prevalence of Premenstrual syndrome among women of reproductive age group. The prevalence rate signifies the hidden burden of premenstrual disorders and its potential impact on the quality of life among women.

Considering that menstruation in itself is still a taboo in our country, the idea of pre-menstrual and menstrual related issues impacting the quality of life of women is nowhere to be spoken about. Further analysis. Not just the 4 days of Menstruation but the week leading to it has also been proven to cause added stress to women's lives.

The study population included women from various occupations, housewives and students thus enabling study of symptoms across a diverse profile of women and the corresponding aspects of life affected by PMS.

The findings of our study present the various aspects of quality of life like mood, self-image etc that are affected by pre-menstrual symptoms.

Set in an Urban area, the study comprises mostly of women belonging to Urban areas following metropolitan lifestyles. The generalisability of the study to include Rural population with traditional practices and lifestyle needs further analysis.

The results of the study stress upon the need for addressing of premenstrual and menstrual related symptoms in women. It is imperative that we create a supportive environment where women can share and address these problems with no barriers. Increased counselling services and better accessibility to care for such disorders will help reduce the burden of such disorders. Lifestyle changes like dietary modifications and exercise must be advocated to reduce the physical and mental stresses caused by PMS.

Understanding that a woman's quality of life impacts the household and the country as a whole, we need to strive to provide better care and support for women.

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